Engineering Interpretations

Building Site Development

Soil properties influence development of building sites, including the selection of the site, the design of the structure, construction, post construction performance, and maintenance. Soil limitation ratings of slight, moderate, and severe are given for shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns, landscaping, and golf fairways.

Shallow Excavations

Shallow excavations are trenches or holes dug in the soil to a maximum depth of 5 or 6 feet. They are used for pipelines, sewer lines, telephone and power transmission lines, basements, open ditches, and cemeteries. The ratings are based on the soil properties that influence ease of digging and resistance to sloughing.

Dwellings With or Without Basements

These are single-family houses of three stories or less. The foundation is assumed to be spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or the depth of maximum frost penetration, whichever is deeper, for houses without basements, or at a depth of 7 feet if a basement is constructed. The ratings are based on properties affecting soil strength and settlement under a load, and those that affect excavation and construction costs.

Small Commercial Buildings

Limitation ratings are given for the undisturbed soil on which small commercial buildings of less than three stories without basements are built. The foundation is assumed to be placed on spread footings of reinforced concrete at a depth of 2 feet or the depth of maximum frost penetration, whichever is deeper.

Local Roads and Streets

Limitation ratings are given for the use of soils for construction of improved local roads and streets that have all-weather surfacing, commonly of asphalt, gravel with binder in it, or concrete, and that are expected to carry automobile traffic all year. These roads and streets are graded to shed water, and conventional drainage measures are provided. With the probable exception of the hard surface, roads and streets are built mainly from the soil at hand.

Lawns, Landscaping, and Golf Fairways

The soils are rated for their use in establishing and maintaining turf for lawns and golf fairways and ornamental trees and shrubs for residential type landscaping. The ratings are based on the use of soil material at the location with some land smoothing. Irrigation may or may not be needed and is not a criterion in rating. Traps, trees, roughs, and greens are not considered as part of the golf fairway. The properties considered are those listed that affect plant growth and trafficability after vegetation is established.

This subsection includes:

• (a) Building Site Development

Building Site Development

Map symbol and soil name	 Dwellings without base 	ements	Dwellings with basem	ents	Small commercial buil	ldings	Local roads and sti	reets	Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ag: Alligator	 Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	1.00	 Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	1.00	 Very limited ~ponded (wetness) (very limited) ~flooding (very limited) ~shrink-swell (very limited)	1.00	 Very limited ~low strength (very limited) ~ponded (wetness) (very limited) ~shrink-swell (very limited)	1.00	 Very limited ~ponded (wetness) (very limited) ~wetness (limited) ~too clayey (moderately limited)	1.00
Ak: Alligator	 Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	 1.00 1.00 1.00	 Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	 1.00 1.00 1.00	(very limited)	1.00	 Very limited ~low strength (very limited) ~ponded (wetness) (very limited) ~shrink-swell (very limited)	1.00	 Very limited ~ponded (wetness) (very limited) ~wetness (limited) ~too clayey (moderately limited)	1.00
Steele	Moderately limited ~wetness (moderately limited) 	 0.51 	Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	0.57	Slightly limited ~wetness (slightly limited) 	0.13	Slightly limited ~wetness (slightly limited) 	0.13	Slightly limited ~wetness (slightly limited) 	0.13
Ba: Baldwin	 Very limited ~ponded (very limited) ~flooding (very limited) ~shrink-swell (very limited)	1.00	 Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	İ	 Very limited ~ponded (wetness) (very limited) ~flooding (very limited) ~shrink-swell (very limited)	1.00	 Very limited ~low strength (very limited) ~ponded (wetness) (very limited) ~shrink-swell (very limited)	1.00	 Very limited ~ponded (wetness) (very limited) ~wetness (limited) ~too clayey (moderately limited)	 1.00 0.99 0.60
BeA: Beulah	 Not limited 	 	 Not limited 		 Not limited		 Not limited 		 Not limited 	
BeB: Beulah	 Not limited 	 	 Not limited 		 Not limited 		 Not limited 		 Not limited 	

Building Site Development

Map symbol and soil name	 Dwellings without base 	ements	Dwellings with basem	ents	 Small commercial buil 	dings	Local roads and str	eets	Lawns and landscap	ing
	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
Bk: Bosket	 Not limited		 Not limited		 Not limited	 	 Not limited	 	 Not limited	
BrB: Broseley	 Not limited 		 Not limited 	 	 Slightly limited ~slope (slightly limited)	 0.15	 Not limited 	 	 Not limited 	
Ca: Cairo	 Very limited ~wetness (very limited) ~ponded (very limited) ~flooding (very limited)	 1.00 1.00 1.00	 Very limited ~ponded (very limited) ~flooding (very limited) ~wetness (very limited)	 1.00 1.00 1.00	 Very limited ~ponded (wetness) (very limited) ~flooding (very limited) ~wetness (very limited)	 1.00 1.00 1.00	 Very limited ~low strength (very limited) ~ponded (wetness) (very limited) ~wetness (very limited)	 1.00 1.00 1.00	 Very limited ~wetness (very limited) ~ponded (wetness) (very limited) ~too clayey (very limited)	1.00
Ch: Calhoun	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 0.45 	 Very limited ~wetness (very limited) ~shrink-swell (slightly limited)	 1.00 0.25	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 0.45 	 Very limited ~low strength (very limited) ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 1.00 0.45	 Very limited ~wetness (very limited) ~too acid (moderately limited)	1.00
Cn: Canalou	 Moderately limited ~wetness (moderately limited)	 0.45 	 Very limited ~wetness (very limited)	 1.00	 Not limited 	 	 Not limited 	 	 Not limited 	
Co: Collins	1 2	 1.00 0.15	 Very limited ~flooding (very limited) ~wetness (limited)	 1.00 0.82	 Very limited ~flooding (very limited) 	 1.00 	 Limited ~flooding (rare) (limited) 	 0.90 	 Slightly limited ~too acid (slightly limited)	0.30

Building Site Development

Map symbol and soil name	 Dwellings without base 	ements	Dwellings with basem	Dwellings with basements		dings	Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value
Ct: Cooter	 Very limited ~flooding (very limited) ~wetness (moderately limited)	1.00	 Very limited ~flooding (very limited) ~wetness (very limited)	1.00	 Very limited ~flooding (very limited)	1.00	 Very limited ~flooding (very limited) 	1.00	 Very limited ~too clayey (very limited) ~flooding (moderately limited)	1.00
Cw: Crowley	 Very limited ~shrink-swell (very limited) ~wetness (very limited)	1.00	 Very limited ~wetness (very limited) ~shrink-swell (limited)	1.00	 Very limited ~shrink-swell (very limited) ~wetness (limited)	 1.00 0.99	 Very limited ~low strength (very limited) ~shrink-swell (very limited) ~wetness (limited)	1.00	 Limited ~wetness (limited) 	0.99
Db: Dubbs	 Moderately limited ~shrink-swell (moderately limited) 	 0.45 	 Slightly limited ~shrink-swell (slightly limited)	0.23	 Moderately limited ~shrink-swell (moderately limited) 	 0.45 	 Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	 1.00 0.45	 Slightly limited ~too acid (slightly limited)	0.12
De: Dubbs	 Moderately limited ~shrink-swell (moderately limited) 	 0.45 	 Slightly limited ~shrink-swell (slightly limited) 	0.16	 Moderately limited ~shrink-swell (moderately limited) 	 0.45 	 Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	 1.00 0.45	 Slightly limited ~too acid (slightly limited) 	0.12
Silverdale	 Moderately limited ~wetness (moderately limited)	 0.45 	 Very limited ~wetness (very limited)	1.00	 Not limited 	 	 Not limited 	 	 Not limited 	

Building Site Development

Map symbol and soil name	Dwellings without bas 	ements	Dwellings with basem	Dwellings with basements		Small commercial buildings		Local roads and streets		ing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value
Dn: Dundee	 Moderately limited ~shrink-swell (moderately limited) ~wetness (moderately limited)	0.44	 Very limited ~wetness (very limited) ~shrink-swell (slightly limited)	1.00	 Moderately limited ~shrink-swell (moderately limited)	0.45	 Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	1.00	 Slightly limited ~too acid (slightly limited)	0.12
Ds: Dundee	 Moderately limited ~shrink-swell (moderately limited) ~wetness (moderately limited)	0.44	 Very limited ~wetness (very limited) ~shrink-swell (slightly limited)	1.00	 Moderately limited ~shrink-swell (moderately limited)	 0.45 	 Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	 1.00 0.45	 Slightly limited ~too acid (slightly limited) 	0.12
Silverdale	 Moderately limited ~wetness (moderately limited)	 0.45 	 Very limited ~wetness (very limited)	1.00	 Not limited 	 	 Not limited 	 	 Not limited 	
Fa: Falaya	 Very limited ~flooding (very limited) ~wetness (limited)	 1.00 0.99 	 Very limited ~flooding (very limited) ~wetness (very limited)	1.00	 Very limited ~flooding (very limited) ~wetness (limited)	 1.00 0.60	 Very limited ~flooding (very limited) ~wetness (limited)	 1.00 0.60	 Limited ~wetness (limited) ~flooding (moderately limited) ~too acid (slightly limited)	0.60
Fg: Farrenburg	 Moderately limited ~shrink-swell (moderately limited) ~wetness (moderately limited)	0.45	 Very limited ~wetness (very limited) ~shrink-swell (slightly limited)	 1.00 0.20	 Moderately limited ~shrink-swell (moderately limited) 	 0.45 	 Very limited ~low strength (very limited) ~shrink-swell (moderately limited)	 1.00 0.45	 Not limited 	

Building Site Development

Map symbol and soil name	 Dwellings without base 	ements	Dwellings with basem	ents	Small commercial build	dings	Local roads and str	eets	Lawns and landscaping	
	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
Fo: Foley	 Very limited ~flooding (very limited) ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 1.00 0.45	 Very limited ~flooding (very limited) ~wetness (very limited) ~shrink-swell (slightly limited)	1.00	 Very limited ~flooding (very limited) ~wetness (limited) ~shrink-swell (moderately limited)	1.00	(very limited) ~wetness (limited)	1.00	 Limited ~wetness (limited)	0.99
Ft: Fountain	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 0.45 	 Very limited ~wetness (very limited) ~shrink-swell (slightly limited)	 1.00 0.00	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 0.45 	 Very limited ~low strength (very limited) ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 1.00 0.45	 Very limited ~wetness (very limited)	 1.00
Gd: Gideon	 Very limited ~wetness (very limited) ~flooding (very limited) ~shrink-swell (moderately limited)	 1.00 1.00 0.45	 Very limited ~flooding (very limited) ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 1.00 0.45	 Very limited ~flooding (very limited) ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 1.00 0.45	(very limited)	 1.00 1.00 0.45	 Very limited ~wetness (very limited) ~flooding (moderately limited)	 1.00 0.60
Jp: Jackport	 Very limited ~shrink-swell (very limited) ~wetness (very limited)	 1.00 1.00 	 Very limited ~wetness (very limited) ~shrink-swell (very limited)	 1.00 1.00 	 Very limited ~shrink-swell (very limited) ~wetness (limited)	 1.00 0.99 	(very limited)	 1.00 1.00 0.99	 Limited ~wetness (limited) ~too clayey (moderately limited)	 0.99 0.60

Building Site Development

Map symbol and soil name	Dwellings without basements 		Dwellings with basements 		Small commercial buildings		Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value 	Rating class and limiting features	Value
Lf: Lafe	Limited ~wetness (limited) ~shrink-swell (moderately limited)	0.99	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	0.45	 Limited ~wetness (limited) ~shrink-swell (moderately limited)	0.60	 Very limited ~low strength (very limited) ~wetness (limited) ~shrink-swell (moderately limited)	 1.00 0.60 0.45	 Limited ~wetness (limited)	0.60
Ln: Lilbourn	Very limited ~wetness (very limited)	 1.00 	 Very limited ~wetness (very limited)	 1.00 	 Limited ~wetness (limited)	 0.99 	 Limited ~wetness (limited)	 0.99 	 Limited ~wetness (limited)	0.99
LoB: Loring	Moderately limited ~wetness (moderately limited)	 0.45 	 Very limited ~wetness (very limited)	 1.00 	 Slightly limited ~slope (slightly limited)	 0.15 	 Very limited ~low strength (very limited)	 1.00 	 Slightly limited ~too acid (slightly limited)	0.12
LoC: Loring	Moderately limited ~wetness (moderately limited) ~slope (slightly limited)	j	 Very limited ~wetness (very limited) ~slope (slightly limited)	 1.00 0.15	 Limited ~slope (limited)	 0.83 	 Very limited ~low strength (very limited)	 1.00 	 Slightly limited ~too acid (slightly limited)	0.12
LoD2: Loring	Moderately limited ~slope (moderately limited) ~wetness (moderately limited)	 0.60 0.45	 Very limited ~wetness (very limited) ~slope (moderately limited)	0.60	 Very limited ~slope (very limited)	 1.00 	 Very limited ~low strength (very limited) ~slope (slightly limited)	 1.00 0.16	(slightly limited)	0.16
M-W: Water	Not rated		 Not rated 	 	 Not rated 	 	 Not rated 	 	 Not rated 	

Building Site Development

Map symbol and soil name	Dwellings without bas 	ements	Dwellings with basem 	ents	Small commercial buil	ldings	Local roads and str	reets	Lawns and landsca	ping
	Rating class and limiting features	Value	Rating class and limiting features	Value 	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ma: Malden	 Not limited 	 	 Not limited 		 Not limited 		 Not limited 		 Limited ~droughty (limited)	0.78
MeC: Memphis	 Slightly limited ~slope (slightly limited)	 0.15	 Slightly limited ~slope (slightly limited)	 0.15	 Limited ~slope (limited)	0.83	 Very limited ~low strength (very limited)	1.00	 Slightly limited ~too acid (slightly limited)	0.12
MeD: Memphis	 Moderately limited ~slope (moderately limited)		 Moderately limited ~slope (moderately limited)		 Very limited ~slope (very limited)	1.00	 Very limited ~low strength (very limited) ~slope (slightly limited)	j	Slightly limited ~slope (slightly limited) ~too acid (slightly limited)	0.16
MeE2: Memphis	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	 1.00 	 Very limited ~slope (very limited) 	1.00	 Very limited ~low strength (very limited) ~slope (very limited)	1.00	(very limited)	1.00
Or: Orthents		 	 Not Rated 	 	 Not Rated 	 	 Not Rated 		 Not Rated 	
Water	Not Rated Not rated 		Not Rated Not rated 		 Not rated 		 Not rated 		Not Rated Not Rated Not rated 	
Os: Orthents	 Not Rated 		 Not Rated 		 Not Rated		 Not Rated 		 Not Rated 	
	Not Rated	İ	Not Rated			İ	<u> </u> 		Not Rated Not Rated	İ

Building Site Development

Map symbol and soil name	Dwellings without bas 	sements	Dwellings with basem	nents	Small commercial bui 	ldings	Local roads and streets		Lawns and landscaping	
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Pt: Pits	 Not rated 		 Not rated 		 Not rated 		 Not rated 		 Not rated	
Ro:	 		 		 		 			
Roellen	Very limited	1.00	Very limited	1.00	Very limited -flooding (very limited) -wetness (very limited) -shrink-swell (very limited)	1.00	(very limited) ~wetness (very limited)	1.00	Very limited wetness (very limited) too clayey (very limited) flooding (moderately limited)	1.00
Sc:	 		 							
Sharkey	Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	1.00	Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	İ	Very limited ~ponded (wetness) (very limited) ~flooding (very limited) ~shrink-swell (very limited)	1.00	(very limited)	1.00	Very limited ~ponded (wetness) (very limited) ~wetness (limited) ~too clayey (moderately limited)	1.00
Sh:	 		 Vown limited		 Vows limited		 		 -	
Sharkey	Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	1.00	Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited)	1.00	Very limited ~ponded (wetness) (very limited) ~flooding (very limited) ~shrink-swell (very limited)	1.00	Very limited ~low strength (very limited) ~ponded (wetness) (very limited) ~shrink-swell (very limited)	1.00	Very limited -ponded (wetness) (very limited) -too clayey (very limited) -wetness (limited)	1.00

Building Site Development

Map symbol and soil name	Dwellings without base	ements	Dwellings with baseme	ents	Small commercial build	dings	 Local roads and str 	eets	Lawns and landscap	oing
	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Sm: Sharkey Steele	Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited) Moderately limited ~wetness (moderately limited)	 1.00 1.00 0.51	 Very limited ~ponded (very limited) ~shrink-swell (very limited) ~flooding (very limited) Very limited ~wetness (very limited)	 1.00 1.00 1.00	 Very limited ~ponded (wetness) (very limited) ~flooding (very limited) ~shrink-swell (very limited) Slightly limited ~wetness (slightly limited)	 1.00 1.00 	 Very limited ~low strength (very limited) ~ponded (wetness) (very limited) ~shrink-swell (very limited) Slightly limited ~wetness (slightly limited)	 1.00 1.00	Very limited ~ponded (wetness) (very limited) ~wetness (limited) ~too clayey (moderately limited) Slightly limited ~wetness (slightly limited)	0.99
So: Sikeston	~flooding (very limited)	 1.00 0.45	<pre>~shrink-swell (moderately limited) </pre>	 1.00 	 Very limited ~flooding (very limited) ~wetness (very limited) ~shrink-swell (moderately limited)	1.00	 Very limited ~flooding (very limited) ~wetness (very limited) ~low strength (very limited)	1.00	 Very limited ~flooding (very limited) ~wetness (very limited)	1.00
W: Water	 Not rated 	 	 Not rated 	 	 Not rated 	 	 Not rated 		 Not rated 	
Wd: Wardell	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 0.45 	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 0.34	 Very limited ~wetness (very limited) ~shrink-swell (moderately limited)	 1.00 0.45 	 Very limited ~wetness (very limited) ~low strength (very limited) ~shrink-swell (moderately limited)	1.00	 Very limited ~wetness (very limited) 	1.00